

Application No. 09/284,787
Reply to Office Action of Feb. 2, 2006

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings of claims in the application:

Claims:

1-17. (Canceled)

18. (Currently Amended) An isolated monoclonal antibody having a binding affinity of $>3 \times 10^8 \text{ M}^{-1}$ for an epitope consisting of 13 or 14 amino acids, wherein a nine amino acid sequence of said epitope consists of the amino acid sequence YPYDVPDYA (SEQ ID NO: 1), as determined using a BIOCORE® surface plasmon resonance system.

19. (Currently Amended) The monoclonal antibody of claim 18, wherein the antibody has a binding affinity of about 10^9 M^{-1} to about 10^{10} M^{-1} ~~for the amino acid sequence YPYDVPDYA (SEQ ID NO: 1) as determined using a BIOCORE® surface plasmon resonance system.~~

20. (Previously Presented) The monoclonal antibody of claim 18 or claim 19, wherein said antibody is raised against an epitope of human influenza virus haemagglutinin consisting of 13 or 14 amino acids, and is produced by hybridomas which are obtained by fusing mouse myeloma cells with B lymphocytes from Lou/C rats, said Lou/C rats having been immunized with a haemagglutinin peptide.

21. (Previously Presented) The monoclonal antibody of claim 18 or claim 19, wherein said antibody is raised against an epitope of human influenza virus haemagglutinin consisting of 13 or 14 amino acids, and is produced by hybridomas which are obtained by fusing mouse myeloma cells with B lymphocytes from Lou/C rats, said Lou/C rats having been immunized with a haemagglutinin peptide, wherein said immunization is carried out with a haemagglutinin peptide coupled to keyhole limpet haemocyanin.

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22. (Currently Amended) ~~A~~The monoclonal antibody produced by hybridoma R 3A12 deposited at the "Deutsche Sammlung für Mikroorganismen und Zellkulturen" under Accession No. DSM ACC2286 (08.10.1996).

23. (Currently Amended) A method for the production of a monoclonal antibody with binding specificity for the epitope YPYDVDPYA (SEQ ID NO: 1) comprising:

(a) providing a haemagglutinin peptide consisting of 13 or 14 amino acids, wherein a nine amino acid sequence of said epitope consists of the amino acid sequence YPYDVDPYA (SEQ ID NO: 1);

(b) immunizing a small mammal with said peptide,

(c) isolating B lymphocytes from the spleen of said mammal and fusing said lymphocytes with mouse myeloma cells to form clones,

(d) selecting clones formed in step (c) that produce an antibody which binds to the haemagglutinin peptide and to a haemagglutinin fusion protein, and

(e) selecting a clone from those selected in step (d) that produces an antibody with a binding affinity of $>10^8 \text{M}^{-1}$ for the sequence YPYDVDPYA (SEQ ID NO: 1) and establishing said clone as a hybrid cell line.

24. (Previously Presented) The method of claim 23, wherein said haemagglutinin peptide is selected from the group consisting of acetyl-YPYDVDPYAGSGSK (ϵ -biotinoyl) amide (a derivative of SEQ ID NO: 2) and biotinoyl- ϵ -Aca-SGSGYPYDVDPYA amide (a derivative of SEQ ID NO: 3).

25. (Previously Presented) The method of claim 23, wherein said haemagglutinin fusion protein is haemagglutinin-tagged glutathione-S-transferase.

26. (New) An isolated monoclonal antibody having a binding affinity of $>3 \times 10^8 \text{M}^{-1}$ for an epitope consisting of acetyl-YPYDVDPYAGSGSK (ϵ -biotinoyl) amide or biotinoyl- ϵ -Aca-SGSGYPYDVDPYA amide, as determined using a surface plasmon resonance system.

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27. (New) The monoclonal antibody of claim 26, wherein the antibody has a binding affinity of about 10^9 to about 10^{10} M^{-1} .